

**Notice of Allowability**

Application No.

10/607,222

Examiner

Phuong T. Bui

Applicant(s)

CLONINGER ET AL.

Art Unit

1638

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to interview of 6/20/05.
2. ☒ The allowed claim(s) is/are 1-9, 18 and 22-32.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☒ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 5/18/04
4. ☒ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date 6/20/05
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kenyon Schuett on June 20, 2005.

The application has been amended as follows:

On page 33 of the specification, the first paragraph was deleted and replaced as follows:

[0145] A deposit of The J.C. Robinson Seed Company proprietary inbred corn line W23129 disclosed above and recited in the appended claims has been made with the American Type Culture Collection (ATCC), 10801 University Boulevard, Manassas, Virginia 20110. The date of deposit was \_\_\_\_\_. The deposit of 2,500 seeds was taken from the same deposit maintained by The J.C. Robinson Seed Company since prior to the filing date of this application. All restrictions upon the deposit have been removed, and the deposit is intended to meet all of the requirements of 37 C.F.R. §1.801-1.809. The ATCC accession number is \_\_\_\_\_. The deposit will be maintained in the depository for a period of 30 years, or 5 years after the last request, or for the effective life of the patent, whichever is longer, and will be replaced as necessary during that period.

The claims were amended as follows:

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Claim 1. (CURRENTLY AMENDED) ~~Seed of~~ A seed of corn inbred line designated W23129, wherein a representative sample of seed of said line ~~having been line was~~ deposited under ATCC Accession No. \_\_\_\_\_.

Claim 2. (CURRENTLY AMENDED) A corn plant, ~~or parts~~ or a part thereof, produced by growing the seed of claim 1.

Claim 3. (ORIGINAL) Pollen of the plant of claim 2.

Claim 4. (ORIGINAL) An ovule of the plant of claim 2.

Claim 5. (CURRENTLY AMENDED) A method of producing a male sterile corn plant comprising crossing the corn plant of claim 2 with a male sterile corn plant containing and expressing a nucleic acid molecule that confers male sterility and harvesting the resultant seed.

Claim 6. (ORIGINAL) A tissue culture of regenerable cells from the corn plant of claim 2.

Claim 7. (CURRENTLY AMENDED) ~~A tissue~~ The tissue culture according to claim 6, ~~the cells or protoplasts of the tissue culture being from a tissue~~ wherein said regenerable cells of the tissue culture are produced from a plant part selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.

Claim 8. (CURRENTLY AMENDED) A corn plant regenerated from the tissue culture of claim 6, wherein the regenerated plant ~~is capable of expressing all the~~ has all of the morphological and physiological characteristics of ~~inbred~~ inbred corn line W23129, a

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representative sample of seed of said inbred corn line having been deposited under ATCC Accession No. \_\_\_\_\_.

Claim 9. (ORIGINAL) A method for producing a hybrid corn seed comprising crossing a first inbred parent corn plant with a second inbred parent corn plant and harvesting the resultant hybrid corn seed, wherein said first inbred parent corn plant or second said parent corn plant is the corn plant of claim 2.

Claims 10.-17. (CANCELED)

Claim 18. (CURRENTLY AMENDED) A method for producing a corn plant that contains in its genetic material ~~one or more transgenes~~ a transgene, comprising crossing the corn plant of claim 2 with either a second plant of another corn line which contains a transgene, or a transformed corn plant of ~~the line~~ inbred corn line W23129 which contains a transgene, so that the genetic material of the progeny that result from the cross contains ~~the transgene(s)~~ a transgene operably linked to a regulatory element.

Claims 19.-21. (CANCELED)

Claim 22. (NEW) A male sterile corn plant produced by the method of claim 5.

Claim 23. (NEW) A protoplast produced from the tissue culture of claim 6.

Claim 24. (NEW) A method of producing an herbicide resistant corn plant comprising transforming the corn plant of claim 2 with a transgene which confers resistance to an herbicide selected from the group consisting of imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine, and benzonitrile.

Claim 25. (NEW) An herbicide resistant corn plant produced by the method of claim 24.

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Claim 26. (NEW) A method of producing an insect resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers insect resistance.

Claim 27. (NEW) An insect resistant corn plant produced by the method of claim 26.

Claim 28. (NEW) The corn plant of claim 26, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.

Claim 29. (NEW) A method of producing a disease resistant corn plant comprising transforming the corn plant of claim 2 with a transgene that confers disease resistance.

Claim 30. (NEW) A disease resistant corn plant produced by the method of claim 29.

Claim 31. (NEW) A method of producing a corn plant with modified fatty acid metabolism or modified carbohydrate metabolism comprising transforming the corn plant of claim 2 with a transgene expressing a protein selected from the group consisting of phytase, fructosyltransferase, levansucrase,  $\alpha$ -amylase, invertase, and starch branching enzyme or encoding an antisense of stearyl-ACP desaturase.

Claim 32. (NEW) A corn plant having modified fatty acid metabolism or modified carbohydrate metabolism produced by the method of claim 31.

**REQUIREMENT OF ALLOWANCE UNDER 37 CFR §§ 1.801-1.809**

2. The specification was amended to include compliance with the deposit requirements under 37 CFR §§ 1.801-1.809. Therefore, no 35 USC § 112, 1<sup>st</sup> paragraph rejection has been made even though it is apparent that seed of corn inbred line W23129 is essential to the claimed invention and that the deposit is necessary for an adequate written description and enablement for the claimed invention. Since the application is otherwise in condition for allowance except for the needed deposit, and

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since the Office has received written assurance that an acceptable deposit will be made on or before payment of the issue fee, the Office is authorized to mail Applicant a Notice of Allowance and Issue Fee Due together with a requirement that the needed deposit be made within THREE (3) MONTHS of the mail date of this letter (see 37 CFR § 1.809(c)).

Under 37 CFR 1.809(c)-(d) an applicant is required to make a deposit of seed within three months after the mailing date of the Notice Of Allowance and Issue Fee Due. The time period for making a biological deposit, and an amendment to add the depository information to the specification and claims, is no longer extendable. See 37 CFR 1.136(c) and 1.809(c), revised in Changes to the Time Period for Making any Necessary Deposit of Biological Material, 66 Fed. Reg. 21090 (April 27, 2001), 1246 Off. Gaz. Pat. Office 104 (May 22, 2001), effective for Notices of Allowability mailed on or after May 29, 2001. Amendments are no longer permitted to be filed after the payment of the issue fee. See 37 CFR 1.312, revised in Changes to Application Examination and Provisional Application Practice, 65 Fed. Reg. 14865, 14869 and 14873 (March 20, 2000), 1233 Off. Gaz. Pat. Office 47, 50 and 54 (April 11, 2000), effective on May 29, 2000. Failure to make the needed deposit of seeds of corn inbred line W23129 will result in **ABANDONMENT** of the application for failure to prosecute. The deposit statement in the specification on page 33 and all claims that refer to the instant seeds by name must be amended to include the deposit accession numbers. These amendments should be submitted before the payment of the issue fee as an

Amendment After Allowance under 37 CFR 1.312. The statement of deposit in the specification shall contain:

- (1) The accession number for the deposit(s);
- (2) The date of the deposit(s);
- (3) A description of the deposited biological material sufficient to specifically identify and to permit examination; and
- (4) The name and address of the depository. (See 37 CFR 1.809(d)).

#### **REASONS FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance: Applicant has developed a corn inbred line W23129 which will be properly deposited under 37 CFR 1.801-1.809. Numerous morphological and physiological characteristics of corn inbred line W23129 are taught in the Variety Description Information of the specification. U.S. Patent No. 6635808 teaches an inbred maize line which shares some morphological and physiological characteristics with W23129, such as type dent and leaf, anther, dry husk, aleurone, hard endosperm and cob color. However, the prior art does not teach or fairly suggest any maize lines that have the combination of traits shown in the instant Variety Description Information. Regarding claims which recite "a part thereof": when the claimed part of the plant is a seed, it is interpreted to mean the seed is that which produces the claimed plant.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Contact Information

4. Any inquiry concerning this communications from the Examiner should be directed to Phuong Bui, whose telephone number 571-272-0793.

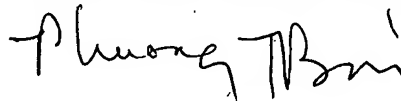
If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amy Nelson, can be reached at 571-272-0804.

The fax phone number for the organization where this application or proceeding is assigned, for sending official correspondence, is 571-273-8300.

Patent applicants with problems or questions regarding electronic images that can be viewed in the Patent Application Information Retrieval system (PAIR) can now contact the USPTO's Patent Electronic Business Center (Patent EBC) for assistance. Representatives are available to answer your questions daily from 6 am to midnight (EST). The toll free number is (866) 217-9197. When calling please have your application serial or patent number, the type of document you are having an image problem with, the number of pages and the specific nature of the problem. The Patent Electronic Business Center will notify applicants of the resolution of the problem within 5-7 business days. Applicants can also check PAIR to confirm that the problem has been corrected. The USPTO's Patent Electronic Business Center is a complete service center supporting all patent business on the Internet.

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For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.



Phuong T. Bui  
Primary Examiner  
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6/20/05